## ABSS Math Unit Planning Template

### Introduction:

<table>
<thead>
<tr>
<th>Grade/Course:</th>
<th>9-12</th>
<th>Discrete Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Number and Title:</td>
<td>Unit 7 - Apportionment</td>
<td></td>
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<tr>
<td>Suggested Unit Pacing (if of days):</td>
<td>7 days</td>
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### Mathematical Practices

- **P1**: Make sense of problems and persevere in solving them.
- **P2**: Reason abstractly and quantitatively.
- **P3**: Construct viable arguments and critique the reasoning of others.
- **P4**: Model with mathematics.
- **P5**: Use appropriate tools strategically.
- **P6**: Attend to precision.
- **P7**: Look for and make use of structure.
- **P8**: Look for and express regularity in repeated reasoning.

### Conceptual Overview

**Essential Understandings**

- SCS: The learner will analyze data and apply probability concepts to solve problems.

### Learning Targets

- Calculate the ideal ratio and standard quotas for a list of populations
- Apportion the ‘seats’ using Hamilton method
- Determine if the Alabama paradox has occurred when adding new seats
- Determine if the population paradox has occurred when populations change (HONORS)
- Determine if the new states paradox has occurred when a state is added (HONORS)
- Apportion the seats using Jefferson method
- Apportion the seats using Adams method
- Apportion the seats using Webster and Hill methods

### Essential Terminology

<table>
<thead>
<tr>
<th>Literacy Standards</th>
<th>Level</th>
<th>Standard</th>
<th>Standard Name</th>
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<tbody>
<tr>
<td>Technology Standards</td>
<td>Level</td>
<td>Standard</td>
<td>Standard Name</td>
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### Literacy Integration

- **Literacy Standards**: Standard
- **Technology Standards**: Standard

### Technology Integration

- **Websites**: Standard

### Assessment

- **Formative Tasks**: Standard
- **Summative Tasks**: Standard

### Resources

- **Learning Plan**
  - Instructional Sequence: 1- Intro apportionment/Hamilton method
  - 2- Alabama paradox, population and new states paradox
  - 3- Jefferson method
  - 4- Adams Method
  - 5- Webster and Hill
  - 6- Review

### Differentiation

- **Remediation**
- **Enrichment**

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http://thinkgate.net/ncalamance/fastsq1_v2_direct.asp?ID=7266|docPreview&xID=539 7/12/2012